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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,179	09/12/2003	Mark G. Smith	81083199/202-1580	2178

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EXAMINER

RESTIFO, JEFFREY J

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/605,179

Applicant(s)

SMITH ET AL.

Examiner

Jeffrey J. Restifo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-13 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 6-8 and 14-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/12/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 9/12/03 has been considered by the examiner.

### ***Specification***

2. The abstract of the disclosure is objected to because line 1 recites the phrase "is provided" which can be implied and should be removed. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

3. Claims 7, 8, 14-16, and 18 are objected to because of the following informalities:

Claim 7, line 2 and claim 8, line 13, recites the limitation "second baffle" lacks antecedent basis. For examining purposes the examiner has assumed claims 7 and 8 to depend upon claim 6, which introduces the second baffle.

Claim 14, line 2 is missing the word "position" after "first" and should be inserted.

Claim 18 recites the limitation "the rear door opening" which lacks antecedent basis. For examining purposes the examiner has assumed the applicant is referring to the "rear vehicle opening" introduced in the same claim.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue et al. (US 6,750,630 B2).

With respect to claims 1, 2, 9, and 17, Inoue et al. discloses a cooling system for a battery 110 in a vehicle with a passenger compartment, said system comprising an air inlet for receiving outside air, a first duct system (or first duct subsystem) 210, fan 212, heat exchanger 215, a second duct subsystem 130, air outlet (or third duct subsystem) 120 leading to the outside, as shown in figure 16.

With respect to claims 3-5 and 10-13, Inoue et al. discloses said air outlet is in communication with the duct system and the passenger compartment by means of a first baffle (or flow inhibitor) 131 moving between a first and second position and able to be intermediate between the two positions, as shown in figure 16.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al., as applied to claim 17 above, and further in view of Tajiri et al. (US 5,490,572 A).

With respect to claim 18, Inoue et al. does not disclose the battery as being in the rear of the vehicle under a floor. Tajiri et al. does disclose a vehicle battery cooling system wherein the battery stack 41 is below a floor 39 and in the rear of the vehicle for allowing uninhibited access to the vehicle 1, as shown in figure 1-3. It would have been obvious to one having ordinary skill in the art at the time of the invention to have located the fuel cell stack of Inoue et al. under the floor and to the rear of the vehicle, as taught by Tajiri et al., in order to increase the storage capacity of the front hood area of the vehicle.

With respect to claim 19, Inoue et al. discloses a baffle 141 movable between two positions for inhibiting communication between the intake 222 and said battery 110, as shown in figure 12.

With respect to claim 20, Inoue et al. discloses first and second sensors 252,251 for creating an ambient air temperature signal and a battery temperature signal, respectively, and a controller for 254 to control the baffle, heat exchanger, and fan in response to said signals, as shown in figures 10-17.

***Allowable Subject Matter***

8. Claims 6-8 and 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

***Conclusion***

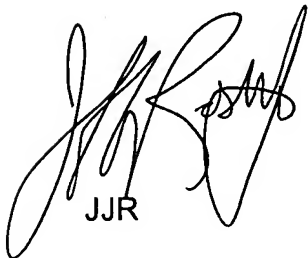
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Masuyama et al., Matsuki et al., Anazawa et al., Mufford et al., Arai et al., Matsuda et al., Whitehead et al., Hosono et al., Minamiura et al., Tanaka et al., Hrovat et al., Misu et al., Inoue et al. ('630), and Garth all disclose vehicle battery cooling systems of interest.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Restifo whose telephone number is (703) 305-0579. The examiner can normally be reached on M-F (10:00-6:00), alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher P. Ellis can be reached on (703) 305-0168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JJR

Jeffrey J. Restifo  
Examiner  
Art Unit 3618